

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave.St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-015909**Date Inspected:** 23-Jul-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Li Yang and Zhu Zhong Hai**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Trial Assembly**Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector Mr. S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 7AW and Segment 7BW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 49 to PP 50, PP 50 to PP 51 and PP 51 to PP52 for Segment 7AW and Segment 7BW at Catwalk installed at Bottom Panel. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00435 dated July 23, 2010.

The bolt sizes used were M16 x 95 RC Lot # DHGM160017 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition. Please reference the pictures attached for more comprehensive details.

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Segment 7DW to Segment 7EW

This QA Inspector witnessed the final bolt tension verification on bolts connecting the Handrail to Fiber Glass Grating between Panel Points (PP) 56 to PP 57 and PP 58 to PP59 for Segment 7DW and Segment 7EW at Catwalk installed at Bottom Panel. The QA Inspector verified the bolt tension on a random basis and the results appeared to be in general compliance. The Inspection was performed against Notification No. 00435 dated July 23, 2010.

The bolt sizes used were M16 x 95 RC Lot # DHGM160017 and the final torque value established was Snug Tight.

A spanner wrench was used to verify the snug tight condition.

Segment 9CW to 9DW

This QA Inspector performed Dimension Control Inspection for measuring Root Gap and Offset at the Transverse Splice for the Segment 9CW to Segment 9DW between Panel Point (PP) 79 to PP 80 at the following locations:

Work Point W5 towards Work Point W6 (Edge Panel Cross Beam Side).

Work Point W6 towards Work Point W4 (Side Panel Cross Beam Side).

Work Point W4 towards Work Point W3 (Bottom Panel).

Work Point W3 towards Work Point W1 (Side Panel Counter Weight Side).

Work Point W1 towards Work Point W2 (Edge Panel Counter Weight Side).

Work Point W2 towards Work Point W5 (Deck Panel).

The QA Inspector measured the Root Gap using 1(One) Taper Gauge and measured the Offset using a Bridge Cam gauge.

The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Suspender Bracket

This QA Inspector performed Dimension Control Inspection for measuring spacing at Suspender Bracket Lifting Rod hole by placing the Socket Template. Inspection performed jointly along with ABF Survey Team for the following mentioned Suspender Bracket at Bay # 19.

The Suspender Bracket was identified as SB66E.

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The measurements were recorded in the Dimension Control Plan (DCP) on a separate form and submitted to the Lead Inspector and Engineer for review and disposition.

Lift 7 East, Lift 7 West, Lift 8 East and Lift 8 West

This QA Inspector photographed the temporary Sea-fasteners at various locations on Lift 7 East and Lift 7 West from Panel Point (PP) 48 to PP 60; Lift 8 East and Lift 8 West from Panel Point 61 to PP 71 and Cross Beam # 7, Cross Beam # 8, Cross Beam # 9, Cross Beam # 10 prior to the shipment of (Voyage 4) en-route to Yerba Buena Island, California, USA. The following locations are where the photographs were taken and the photographs are available for review upon request.

Temporary Sea fasteners installed at Port side, Starboard side, Forward side and AFT side of the Segments and Cross Beams on Ship # 19 at Jetty no. 5.

Please reference the pictures attached for more comprehensive details.

Segment 9BW to Segment 9CW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as DP672-001-019, DP672-001-020 and DP672-001-021. The welder identification was 066261 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b. The piece mark was identified as the Deck Panel to I-Ribs at the Counter Weight Side.

Segment 9BW to Segment 9CW

This QA Inspector observed the in-process welding by Shielded Metal Arc Welding (SMAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as DP672-001-020. The welder identification was 066326 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-3213-B-U3b. The piece mark was identified as the Deck Panel to I-Ribs at the Cross Beam Side.

Segment 9BW to Segment 9CW

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as BP098-001-020 and BP098-001-021. The welder identification was 045143 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F. The piece mark was identified as the Bottom Panel to T-Ribs.

9DW

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SSD25-PP-081-117. The welder identification was 045280 and was observed welding in the 1G (Flat) position using approved Welding Procedure

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Specification WPS-B-T-2231-B-U2-F. The piece mark was identified as the partial height diaphragm at FL3 location.

9DW

This QA Inspector observed the in-process welding by Flux Cored Arc Welding (FCAW) process on a Complete Joint Penetration (CJP) groove weld. The Weld joint was designated as SSD25-PP-081-118. The welder identification was 045280 and was observed welding in the 3G (Vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F. The piece mark was identified as the partial height diaphragm at FL3 location.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.



Summary of Conversations:

No relevant conversations were reported on this date.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Peterson,Art	QA Reviewer
